

Claims

What is claimed is:

1. A method for enabling an electronic information marketplace, the method
5 comprising the steps of:
collecting a request from a buyer for a requested information good;
analyzing the request to create additional information from the request;
collecting one or more offered information goods from one or more
sellers;
10 analyzing each of the offered information goods to create additional
information from the information good; and
matching the request with at least one of the offered information goods by
matching the additional information from the request with the additional information
from the at least one information good.
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2. The method of claim 1, wherein the step of matching further comprises the
step of selecting the at least one offered information goods as a best match.
3. The method of claim 1, wherein the step of matching further comprises the
20 step of matching the request with at least one of the offered information goods by
comparing the additional information from the request and the request with the additional
information from the at least one information good and the at least one offered
information good.
- 25 4. The method of claim 1, wherein the step of analyzing the request further
comprises the step of analyzing the request to create annotations, and wherein the step of
analyzing each of the one or more offered information goods further comprises the step of

analyzing each of the one or more offered information goods to create annotations.

5. The method of claim 4, wherein each of the annotations comprises one or more of metadata, semantics, syntactic information, summary information, and model
5 information.

6. The method of claim 1, wherein the step of analyzing the request further comprises the step of creating at least one inference from the request, and wherein the step of analyzing each of the one or more offered information goods further comprises the
10 step of creating at least one inference from each the offered information goods.

7. The method of claim 6, wherein each inference is created through deduction, induction, or abduction.

8. The method of claim 6, wherein the step of analyzing the request further comprises the step of accessing at least one request knowledge model, and wherein the step of analyzing each of the offered information goods further comprises the step of
15 accessing at least one offered knowledge model.

9. The method of claim 1, wherein the step of analyzing the request further comprises the step of accessing at least one request knowledge model, and wherein the step of analyzing each of the offered information goods further comprises the step of
20 accessing at least one offered knowledge model.

10. The method of claim 1, wherein each of the offered information goods has a price associated with the information good and wherein the step of matching further comprises dynamically determining prices of the offered information goods.
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11. The method of claim 10, wherein the step of dynamically determining prices further comprises the step of creating an influence diagram comprising nodes and arcs, each arc connecting one node with another node.

5 12. The method of claim 11, wherein the step of dynamically determining prices further comprises the step of updating expectations and probabilities, defined by the influence diagram, through Bayesian updating or a Bayes linear method selected from a group consisting of linear Bayes updating and updating with decisions.

10 13. The method of claim 11, wherein the step of dynamically determining prices further comprises the step of maximizing utility.

14. The method of claim 1, wherein each information good comprises a good that can be distributed in digital form.

15 15. The method of claim 1, further comprising the step of exchanging the at least one offered information good and the requested information good, whereby the buyer has the at least one offered information good and one of the sellers has the requested information good after the exchange.

20 16. The method of claim 1, wherein:
the step of analyzing the request further comprises the step of annotating the request with annotations comprising one or more of metadata, semantics, syntactic information, summary information, and model information;

25 the step of analyzing each of the offered information goods further comprises the step of annotating each of the information goods with annotations comprising one or more of metadata, semantics, syntactic information, summary

information, and model information;

the method further comprises the steps of:

determining at least one offer inference from the one or more offered information goods; and

5 determining at least one request inference from the request; and

the step of matching further comprises the step of matching the request with at least one of the offered information goods by comparing the request, and annotations and request inferences of the request, with the offered information goods, and annotations and offer inferences of the offered information goods.

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17. The method of claim 16, wherein the step of determining at least one offer inference further comprises the step of determining the at least one offer inference by using one or more of an inductive method, a deductive method, and an abductive method.

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18. The method of claim 1, further comprising the step of selecting a trading mechanism from a group consisting of fixed-price, price discrimination, auction, and subscription.

20 19. The method of claim 1, further comprising the step of decomposing an offering of one of the offered information goods, and wherein the step of matching further comprises the step of comparing decompositions of the one offered information good with the request and the additional information from the request.

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20. A system for enabling an electronic information marketplace, the system comprising:

a memory that stores computer-readable code; and

a processor operatively coupled to the memory, the processor configured

5 to implement the computer-readable code, the computer-readable code configured to:

collect a request from a buyer for a requested information good;

analyze the request to create additional information from the request;

collect one or more offered information goods from one or more sellers;

10 analyze each of the offered information goods to create additional information from the information good; and

match the request with at least one of the offered information goods by matching the additional information from the request with the additional information from the at least one information good.

15 21. The system of claim 20, wherein the computer-readable code is configured, when analyzing the request, to analyze the request to create annotations, and wherein the computer-readable code is configured, when analyzing each of the one or more offered information goods, to analyze each of the one or more offered information goods to create annotations.

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22. The system of claim 21, wherein each of the annotations comprises one or more of metadata, semantics, syntactic information, summary information, and model information.

25 23. The system of claim 20, wherein the computer-readable code is configured, when analyzing the request, to create at least one inference from the request, and wherein the computer-readable code is configured, when analyzing each of the one or

more offered information goods, to create at least one inference from each the offered information goods.

24. The system of claim 23, wherein each inference is created through
5 deduction, induction, or abduction.

25. The system of claim 20, wherein the computer-readable code is
configured, when analyzing the request, to of access at least one request knowledge
model, and wherein the computer-readable code is configured, when analyzing each of
10 the offered information goods, to access at least one offered knowledge model.

26. The system of claim 20, wherein each of the offered information goods has
a price associated with the information good and wherein the computer-readable code is
configured, when matching, to dynamically determine prices of the offered information
15 goods.

27. The system of claim 26, wherein the computer-readable code is
configured, when dynamically determining prices, to create an influence diagram
comprising nodes and arcs, each arc connecting one node with another node.
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28. The system of claim 27, wherein the computer-readable code is
configured, when dynamically determining prices, to update expectations and
probabilities, defined by the influence diagram, through Bayesian updating or a Bayes
linear method selected from a group consisting of linear Bayes updating and updating
25 with decisions.

29. The system of claim 27, wherein the computer-readable code is configured, when dynamically determining prices, to maximize utility.

30. The system of claim 20, wherein each information good comprises a good
5 that can be distributed in digital form.

31. The system of claim 20, wherein the computer-readable code is further configured to exchange the at least one offered information good and the requested information good, whereby the buyer has the at least one offered information good and
10 one of the sellers has the requested information good after the exchange.

32. The system of claim 20, wherein the computer-readable code is further configured to decompose an offering of one of the offered information goods, and wherein the computer-readable code is configured, when matching, to compare
15 decompositions of the one offered information good with the request and the additional information from the request.

33. An article of manufacture comprising:
a computer-readable medium having computer-readable code means
20 embodied thereon, the computer-readable code means comprising:
a step to collect a request from a buyer for a requested information good;
a step to analyze the request to create additional information from the request;
a step to collect one or more offered information goods from one or more
25 sellers;
a step to analyze each of the offered information goods to create additional information from the information good; and

a step to match the request with at least one of the offered information goods by matching the additional information from the request with the additional information from the at least one information good.

5 34. The article of manufacture of claim 33, wherein the computer-readable code means further comprises, when analyzing the request, a step to analyze the request to create annotations, and wherein the computer-readable code means further comprises, when analyzing each of the one or more offered information goods, a step to analyze each of the one or more offered information goods to create annotations.

10 35. The article of manufacture of claim 34, wherein each of the annotations comprises one or more of metadata, semantics, syntactic information, summary information, and model information.

15 36. The article of manufacture of claim 33, wherein the computer-readable code means further comprises, when analyzing the request, a step to create at least one inference from the request, and wherein the computer-readable code means further comprises, when analyzing each of the one or more offered information goods, a step to create at least one inference from each the offered information goods.

20 37. The article of manufacture of claim 36, wherein each inference is created through deduction, induction, or abduction.

25 38. The article of manufacture of claim 33, wherein the computer-readable code means further comprises, when analyzing the request, a step to access at least one request knowledge model, and wherein the computer-readable code means further comprises, when analyzing each of the offered information goods, a step to access at least

one offered knowledge model.

39. The article of manufacture of claim 33, wherein each of the offered information goods has a price associated with the information good and wherein the computer-readable code means further comprises, when matching, a step to dynamically determine prices of the offered information goods.

40. The article of manufacture of claim 39, wherein the computer-readable code means further comprises, when dynamically determining prices, a step to create an influence diagram comprising nodes and arcs, each arc connecting one node with another node.

41. The article of manufacture of claim 40, wherein the computer-readable code means further comprises, when dynamically determining prices, a step to update expectations and probabilities, defined by the influence diagram, through Bayesian updating or a Bayes linear method selected from a group consisting of linear Bayes updating and updating with decisions.

42. The article of manufacture of claim 40, wherein the computer-readable code means further comprises, when dynamically determining prices, a step to maximize utility.

43. The article of manufacture of claim 33, wherein each information good comprises a good that can be distributed in digital form.

44. The article of manufacture of claim 33, wherein the computer-readable code means further comprises a step to exchange the at least one offered information

good and the requested information good, whereby the buyer has the at least one offered information good and one of the sellers has the requested information good after the exchange.

- 5 45. The article of manufacture of claim 33, wherein the computer-readable code means further comprises a step to decompose an offering of one of the offered information goods, and wherein the computer-readable code means further comprises, when matching, a step to compare decompositions of the one offered information good with the request and the additional information from the request.

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